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Notice of Allowability	Application No.	Applicant(s)	
	09/554,426	CRUICKSHANK ET AL.	
	Examiner	Art Unit	
	Afsar M Qureshi	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendments (7/01/2004) and subsequent amendments requested, by e-mail, 11/23/2004.
2. ☒ The allowed claim(s) is/are 1-12.
3. ☒ The drawings filed on 29 December 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>01/09/2004</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|


AFSAR QURESHI
PATENT EXAMINER

11/29/04

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Niels Haun on 11.23/2004.

2. The application has been amended as follows:

IN THE CLAIMS:

(A) *In claim 1, line 4, after 'correlating means' replaced "." with -- , --*

In claim 1, line 4, after 'means' added -- wherein the FFT means operates on the output of the correlating means to enable different possible frequency offsets to be simultaneously analyzed, and wherein the FFT means operates on the output of the correlating means to enable the different possible frequency offsets to be simultaneously analyzed to enable selection of Doppler offset for a selected output --.

In claim 10, line 2, after 'comprising' added -- ; --

*In claim 10, line 3, after 'correlation operations' added -- ; -- and deleted "**, and**"*

In claim 10, line 4, deleted " ." at the end of the sentence and added -- , wherein the partial correlation results are processed using a zero padded FFT to enable different possible frequency offsets to be simultaneously analyzed; and Analyzing the different possible frequency offsets simultaneously to enable selection of a Doppler offset for a selected output -- .

- (B) Cancelled claims 13-16 from the Amendment received / entered on July 01, 2004.

Reason for Allowance

3. Claims 1-12 are allowed over prior art of record.

The following is an examiner's statement of reasons for allowance:

The present invention is related to the acquisition time of a spread spectrum communication system through the reuse of FFT processing block by achieving tolerance to Doppler frequency offset in which a bank of time domain code matched correlators in the receiver are replaced by a plurality of shorter length correlators, each for correlating a *part of the spreading code sequence* relating to the signal to be acquired. The unique method step including "processing partial correlation results using a zero padded FFT and analyzing different possible frequency offsets simultaneously in order to select Doppler offset for a selected output". The closest prior art, Hottinen et al. (WO 96/24206) and Blanchard et al. (US 5,629,929), singularly or in combination, fails


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to disclose the above underlined limitation, as claimed in the independent claims 1 and 10, herein.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Afsar M Qureshi whose telephone number is (571) 272 3178. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272 3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


AFSAR QURESHI
PATENT EXAMINER

November 29, 2004